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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,020	12/13/2001	Frederick J. Ziegler	R0C920010282US1	2680
25854	7590	09/16/2005	EXAMINER	
BRYAN W. BOCKHOP, ESQ. 2375 MOSSY BRANCH DR. SNELLVILLE, GA 30078			MEHRA, INDER P	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 09/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

✓

Office Action Summary

Application No.

10/022,020

Applicant(s)

ZIEGLER ET AL.

Examiner

Inder P. Mehra

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to application dated: 12/13/2001.

Claim Objections

2. Claims 4-9 are objected to because of the following informalities: Claim 4 (sub-para f.ii) recites "a read initialization. It should be changed to "the read initialization", because it is preceded by the same limitation in claim 4 sub-para a.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claim 4 recites the limitation "the read initialization signal" in sub-paragraph h.ii. There is insufficient antecedent basis for this limitation in the claim. It is preceded by "a read realization request signal".

- b. Claim 6 recites the following limitations:

- "the second FIFO's" in line 5. There is no antecedent basis for this limitation in the claim. Similar problem exists in claim 6.

Art Unit: 2666

- "the additional initialization request signal" in line 4. There is no basis for this limitation in the claim.
- c. Claim 7 recites the limitation "the FIFO fullness" in line 4. There is insufficient antecedent basis for this limitation in the claim. This is preceded by "the FIFO fullness indicator". Similar problem exists in claim 8.
- d. Claim 10 recites the limitation "the first parallel bus" in line 3, and "the second parallel bus" in line 6. There is no antecedent basis for this limitation in the claim.
- e. Claim 10 recites the limitation "may be transmitted" in sub-paragraph c. There is a sense of indefiniteness for this limitation in the claim.

NOTE: There are similar problems of antecedent basis in rest of the claims.

Appropriate action be taken to correct the problems.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-2 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by **Ashwood Smith** (US Patent Application No. 2005/0047392), hereinafter, Smith.

For claims 1 and 10, Smith discloses, in reference to figs 2-3, “a method of communicating a plurality of parallel data packets from a first data parallel bus to a second parallel data bus, refer to paragraph 0040; comprising the steps of:

- separating each of the plurality of parallel data packets into a first portion and a second portion, (refer to “For any given data capacity of a frame 16 it is possible to select between a large number N of short payload blocks 20 and a small number N of long payload blocks 20”, refer to paragraph 0039);
- converting each first portion into a first serial data stream and converting each second portion into a second serial data stream (a second buffer 36 may be employed to handle inbound frames 16. A parallel-to-serial converter 38 is then used to convert the parallel packet segments into a serial bit stream and so recover a serial) data packet from the inbound frame 16, refer to paragraph 0042);
- transmitting the first serial data stream over a first serial data channel, and transmitting the second serial data stream over a second serial data channel, (the transparent optical paths 54a,b are set up through the optical switch to respective different output ports 42c,d then the payload blocks 20a,b of each frame 16a,b can be conducted through the optical router 4, refer to paragraph 0047);
- converting the first serial data stream into a plurality of first received portions and converting the second serial data stream into a plurality of second received portions, (refer to “FIG. 3, describes the operation of the serial to parallel

Art Unit: 2666

converter 24, the buffer 26, and the optical couplers 28,30 in terms of the conversion of a data packet into a frame 16 for transport across the optical network 2., refer to paragraph 0047”, and

- combining selected first received portions with corresponding selected second received portions so as to regenerate the plurality of parallel data packets, (refer to “if the routing information encoded in the respective frame labels 18a,b requires transparent optical guide paths to be established across the optical switch to a common output port 42c---”, refer to paragraph 0047).

For claim 2, Smith discloses “wherein the first serial data channel and the second serial data channel each comprise an optical serial data link”, (refer to paragraph 0042, “transport across the optical network 2”).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Smith**, as above, in view of **Baker** (US Patent No. 6,333,938).

For claim 3, Smith discloses all the limitations of subject matter, with the exception of the following limitations, which are disclosed by Baker, as follows:

Art Unit: 2666

“receiving data using a plurality of FIFO's, each FIFO having a read side and a write side”, refer to col. 9 lines 25-62.

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of receiving data using a plurality of FIFO's, each FIFO having a read side and a write side, as taught by Baker. The capability can be implemented in interface of channel embodiment. The motivation for using this capability is to generate and synchronize control signals for certain packet information.

9. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Smith**, as above, in view of **Levin** (US Patent Application No. 2003/0074629).

For claim 25, Smith discloses all the limitations of subject matter, with the exception of the following limitations, which are disclosed by Levin, as follows:

“a circuit element that periodically and contemporaneously adds to both the first serial data stream and the second serial data stream an alignment character”, refer to paragraph 0007.

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of adding to both the first serial data stream and the second serial data stream an alignment character, as taught by Levin. The capability can be implemented in interface of channel embodiment. The motivation for using this capability is to generate and synchronize control signals for certain packet information.

Allowable Subject Matter

Art Unit: 2666

10. Claims 4-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 4-9 and 11-24 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Prior Art of Record

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

* **Ejiri** (US Patent No. 6,347,098) discloses a packet multiplexing apparatus including at least one high transmission rate memory for accumulating high transmission rate data. and at least one low transmission rate data memory for accumulating a low transmission rate data.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Inder P. Mehra whose telephone number is 571-272-3170. The examiner can normally be reached on Monday through Friday from 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2666

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Inder Pal Mehra
Inder P Mehra
Examiner
Art Unit 2666
9/7/05


DANG TON
PRIMARY EXAMINER